

REMARKS

Claims 1-2, 4-8, 10-28, 32-35, and 41-45 are pending in this application. Claims 1, 4, 7, 12, 23, 32, 34, and 44 are amended in this response. Claims 29-31 are cancelled.

In the Office Action of January 4, 2006, claims 1, 7, 12, 23 and 44 were objected to because of various informalities. The amendments made on March 30, 2006 in response to the Office Action of January 4, 2006 were not entered since the amendment document was considered to be non-compliant. The present amendments include those made in the March 30, 2006 response, as well as new amendments.

Claims 1, 7, 12, 23, and 44 were amended to address the claim objections set forth in the Office Action of January 4, 2006 in accordance with the suggested corrections.

In the Office Action of January 4, 2006 claims 4-8, 10 and 11 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner submitted that claims 4-8, 10 and 11 improperly depend from a cancelled claim. Claim 4 was amended to correct the dependency of the claims. Applicants respectfully traverse this rejection based on the claims as currently amended.

In the Office Action of January 4, 2006 claims 1, 2, 4-8, 10-15, 17, 19-21, 25, 29, 30, 40-43 and 45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Minet et al. (U.S. 5,229,102) in view of Mikus et al. (WO 99/18392). In the Advisory Action of April 14, 2006, the rejection was maintained over the arguments submitted in Applicant's response of March 30, 2006. Applicants respectfully traverse this rejection based on the claims as currently amended.

MPEP § 2143 states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Claim 1 provides a steam reforming-fuel cell system that includes a steam reforming reactor having an outlet for hydrogen and a fuel cell in communication with the outlet for hydrogen of the steam reforming reactor.

Minet et al. teaches a steam reforming reactor that employs a tubular ceramic membrane in a heated metallic tube. The steam reforming reactor may be combined with operation of a heat engine or a gas turbine.

Mikus et al. teaches a process heater employing flameless distributed combustion that is in heat exchange relationship with a process chamber. The process heater with flameless distributed combustion may be used in a steam reforming reactor. Hydrogen produced by the steam reforming may be further processed by a secondary reformer to produce methanol or ammonia.

Neither Minet nor Mikus teach a steam reforming reactor-fuel cell system with the fuel cell system in communication with the hydrogen outlet of the steam reforming reactor. As such, the prior art references do not teach or suggest all of the claim limitations of claim 1 and no *prima facie* case of obviousness has been established with respect to claim 1 or claims depending therefrom (claims 2, 4-8, 10-28, 32-35, and 41-45).

In light of the above, Applicants respectfully request allowance of the pending claims in the application.

Respectfully Submitted,

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